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# On corporate risk management practices in Romanian companies

#### Alexandra Horobet, Sorin Dumitrescu and Cosmin Joldes

Academy of Economic Studies Bucharest, 6 Piata Romana, Bucharest-1, Romania

**Abstract:** The purpose of this paper is to provide an understanding of corporate risk management practices in Romanian companies, by investigating the risk management approaches Romanian companies take. Our main findings are that Romanian managers are not aware of the magnitude of exposure their companies have to various types of risk – hazard, operational, financial and strategic risks, while they are able to manage rather well all these risks, even the ones that have the lowest impact on the business. At the same time, risk management systems employed by Romanian companies are rather inarticulate and based on traditional approaches towards risk management, which might represent by itself a major source of risk, given the complexity of the business environment they face.

Key words: corporate risk assessment, risk management, Romania

#### 1. Introduction

Risk management is a field that has enjoyed an exponential development in the last decades. The main factors that can explain its development are the increased volatility of the markets trading real and financial assets, the financial innovation surge generated by the appearance of new financial products and derivative instruments, and the development of international transactions, fueled by the accelerated globalization of markets. In the past decades we have seen an increase of the sophistication degree in the field of risk management, triggered by the evolution from the traditional approach to assessing and controlling risks, to an integrated approach, based on proactive risk management. From the traditional risk management techniques, developed due to utility and portfolio theories by Markowitz (1952), Sharpe (1964) and Lintner (1965), to the subsequent development of financial markets in the area of derivative financial products, due to the models proposed by Black and Scholes (1973) and Merton (1973) and to the emergence of risk assessment standards such as Value at Risk developed by RiskMetrics, we observe today an increasingly integrated approach to risk both in practice and especially in research. The legislative initiatives such as the Sarbanes-Oxley Act in the United States or the Financial Security Law in France require public companies to be more transparent when it comes to risk management. At the same time, the institutional organizations such as the Global Association of Risk Professionals (GARP) or the Professional Risk Managers' International Association have led to the standardization and the development of the professional risk manager.

Romanian companies face financial, commercial, political and technological changes with a considerable

impact on the complexity of the risks that influence them. Quite often, the business environment generates new types of risks at a national, and especially at an international level. The speed of these changes has as direct consequences the diminishment of companies' reaction time and the increase in the magnitude of business risk. In this context of an increasing complexity of the business framework, a correct assessment of the business risk that companies are exposed to, as well as the design of effective risk management strategies have stopped representing mere options of the managerial teams, becoming indispensable components of the business strategy, aiming at consolidating company's competitiveness. In this context, understanding the level of corporate exposure to different types of risks, on one hand, and risk exposure management techniques, on the other hand, are critical issues for companies' evolutions, in either normal or turbulent times.

The purpose of this paper is to provide an understanding of corporate risk management practices in Romanian companies, by investigating the risk management approaches Romanian companies take. The results reported in this paper are backed-up by a survey of non-financial Romanian companies conducted at the end of 2007 within the framework of a research grant financed by the Romanian Government<sup>1</sup>. The survey is the first one that addresses directly the risk management policies of Romanian companies. The paper is structured as follows: Section 2 outlines the survey methodology and describes the respondents, Section 3 discusses the survey results, and Section 4 concludes.

<sup>1 &</sup>quot;Assessing risk management strategies in the case of Romanian companies. Recommendations for competitiveness increase policies in the perspective of the post-accession period to the European Union", CEEX Program, 2006–2008

#### 2. Survey methodology and respondents description

The survey was conducted in October 2007 by the means of a questionnaire that included 17 questions that addressed the issue of companies' perceptions regarding the risks they are exposed to, from a static and a dynamic perspective, on one hand, and the approaches towards risk management and the techniques employed by Romanian companies in order to mitigate the risks they consider to be exposed to, on the other hand. Since the size of the questionnaire is significant, an interpretation of its overall results is impossible, but we selected a number of five questions that are able to provide a good understanding of the overall results in terms of Romanian companies' approaches to risk management. These questions, along with the responses, are presented in the next section of the paper.

Starting from the number of active Romanian companies in various industries, four main economic sectors have been chosen to participate in the survey, as follows: (1) Manufacturing industries; (2) Construction industries; (3) Trade industries; (4) Transportation, warehousing and communication industries. The 2006 Romanian Statistical Yearbook represented the source of information regarding these companies – *Table 1* presents the turnover of companies from these four sectors and the number of companies from each sector, as well as the industry concentration in terms of turnover and number of employees. The manufacturing industries show a high degree of concentration, with only five companies generating almost half of the industry turnover (47.25%) and 20 companies generating 70% of the turnover. The same concentration is present for the transportation, warehousing and communication industries, while the other two industries display a lower degree of concentration, as the first 20 companies do not generate more than 20% of the turnover. Given the total number of 318,728 companies, the sample that reflects a 5% representativeness level includes 381 companies. In order to avoid a high non-response rate, the questionnaire was sent to 560 companies, selected with the support of the National Commission for Forecasting.

The number of companies that responded to the questionnaire is presented in *Table 2*. The overall response

Table 1. Romanian companies turnover and number of employees

Sector according to CAEN	Turnover (2005)		Number of companies (2005)	Companies' cumulative weight in total sector turnover (%)		Companies' cumulative weight in total sector number of employees (%)	
	Mil. RON	Mil. EUR		First 5	First 20	First 5	First 20
Manufacturing	17,702.5	4,890.2	59,060	47.25	70.00	45.61	65.95
Construction	7,919.4	2,187.7	30,372	8.10	12.98	8.40	13.14
Trade	7,336.7	2,026.7	200,380	11.85	18.64	5.04	8.75
Transportation, warehousing, communication	5,208.3	1,438.8	28,916	43.21	60.47	55.48	69.60
Total	38,166.9	10,543.3	318,728	_	-	_	_

Source: 2006 Romanian Statistical Yearbook, National Institute of Statistics

rate (35.71%) is encouraging for such an endeavor in an emerging market, where companies are typically more reluctant in providing information about their activities, and leads to a good understanding of risk management practices in Romania in the non-financial sector.

Table 2. Number of survey respondents

Sector and industry	Number of companies that received the questionnaire	Number of respondents	Response rate (%)
Manufacturing, of which:	264	103	39.02
- Extracting industries	9	7	77.78
- Manufacturing industries	253	94	37.15
<ul> <li>Energy and utilities</li> </ul>	2	2	100.00
Construction	114	39	34.21
Trade	107	32	29.91
Transportation, warehousing and communications	75	26	34.67
Total	560	200	35.71

Albeit addressed to financial and general managers of the Romanian companies, the range of respondents in terms of their position in the company is rather high, as illustrated in *Figure 1*. Sill, around half of respondents (51.5%) hold a managerial position in the company, either at a departmental level or in top management. A high percentage of respondents is represented by accountants or chief accountants (9.50%) and by representatives of the financial/accounting/economic department. Only two respondents hold a position that is somehow related to risk management: one respondent is an evaluator of the company risk level and another is responsible for the risk level. No respondent comes from the risk management department, which is a solid indication, in our opinion, of a low profile of risk management activities at the level of Romanian companies.

The vast majority of companies have a medium to high turnover (87.26% of the respondents), while in terms of employees 45.41% of respondents dispose of 500 to 1,000 employees. In terms of capital used, 74.04% of the respondents

benefit from a capital above 1,000,000 RON (approximately 270,000 EUR). Given this structure of respondents, which indicates that they are mostly important companies in these sectors, we believe that an interpretation of results as applied to the entire Romanian economy is appropriate. In terms of their capital origin, most companies are totally or partially privately hold (91.81% of respondents), while the origin of capital is mostly Romanian (61.31% are hold by Romanian shareholders). In terms of beginning year of activity, 31 companies (15.82%) started operations before 1990, 126 companies (64.29%) began their activity between 1991 and 2000, only 39 companies (19.90%) being quite young, with activity starting after 2000.

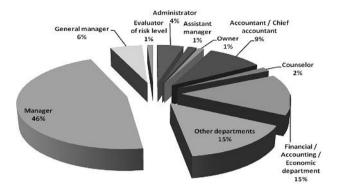
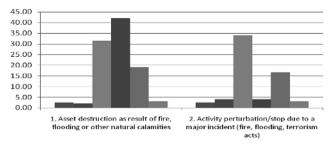


Figure 1. Structure of respondents according to their position in the company

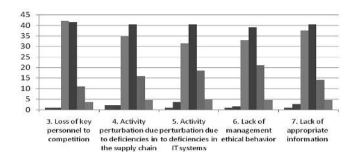
#### 3. Survey results and discussion

Three questions from the questionnaire represent the source of information concerning the approach Romanian companies take towards risk management policy and activity. The first of them asked respondents to assess the way the company manages various types of risks indicated in the questionnaire, while the other two look at the overall risk management policy of the company and the nature of the risk management system employed by companies. We address first the management of specific types of risks and then discuss our findings regarding the overall risk management policy.

The types of risks that we structured our question around are hazard, operational, financial and strategic risks. Each risk category addresses a particular area of sources of concern for business operations, as follows: hazard risks refer to risks typically associated to natural disasters, accidental destruction of company's assets or even to business closing; operational risks include the risks related to the company's dependency on processes, employees and products; financial risks take into account fluctuations in macroeconomic variables such as exchange rates and interest rates, volatility of commodity prices and the default on payments from customers; strategic risks may negatively affect business growth and lead to major difficulties in attaining the business objectives due to the organization's inability to adjust to a dynamic and volatile competitive



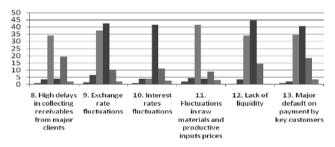
■Verypoor(1) ■Poor(2) ■ Medium (3) ■ Good(4) ■ Verygood (5) ■ No answer Figure 2. Management of hazard risks – percentage of responses



■Very poor (1) ■Poor (2) ■ Medium (3) ■ Good (4) ■ Very good (5) ■ No answer Figure 3. Management of operational risks – percentage of responses

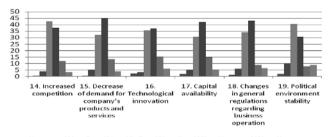
environment. We asked the respondents to assess company's performance in managing these types of risk on a scale from 5 – Very high to 1 – Very low. *Figures 2 to 5* present the distribution of responses.

In terms of companies' ability to manage the risks they are exposed to, a number of issues are noteworthy, as they emerge from our survey. First, regardless of the type of risk, the overall perception is that Romanian companies manage them in a rather well manner – for all 19 categories of risks, the highest percentages of responses indicate a medium or good performance in risk management. Second, a significant proportion of answers indicate a very good management of risks, particularly for hazard and operational risks.



 $\blacksquare$  Very poor (1)  $\blacksquare$  Poor (2)  $\blacksquare$  Medium (3)  $\blacksquare$  Good (4)  $\blacksquare$  Very good (5)  $\blacksquare$  No answer

Figure 4. Management of financial risks – percentage of responses



■ Very poor (1) ■ Poor (2) ■ Medium (3) ■ Good (4) ■ Very good (5) ■ No answer

Figure 5. Management of strategic risks – percentage of responses

Figure 6 offers another perspective on the Romanian companies' perception regarding their performance, based on an average score for each type of risk, as a weighted average of the scores from 1 to 5 attributed to companies' performance in the field, the weights being given by the number of responses for each particular score. The general opinion is that Romanian companies manage their risks rather well, which indicates quite an optimistic view on their ability to mitigate risks. At the same time, the risks that are

best managed are the "lack of management ethical behavior" (average score 3.81), followed by "activity perturbation due to deficiencies in IT systems" (average score 3.76) and "no payments for the contracted financial obligations" (average score 3.76). Romanian companies seem to manage in a worse manner the "political environment stability" (average score 3.36), "fluctuations in prices of raw materials and productive inputs" (average score 3.51) and "exchange rate fluctuations" (average score 3.54). For what concerns the stability of the political environment the low score is normal, in our view, but the low scores in the other two risks case may be explained by the lack of appropriate financial instruments on the Romanian market that can be used to manage these risks.

Besides the management of particular categories of risk, we were interested in the respondents' opinion regarding the overall management of risk in their company. The respondents could provide more than one answer (see results in *Table 3*). We observe that almost half of answers (49.09%) indicate an efficient management of risks at the level of Romanian companies, only 5.45% of respondents recognizing a deficiency in risk management. In our opinion, this points to a lack of proper understanding of the magnitude of risks that businesses are exposed to, coupled with an incorrect approach to risk management. This conclusion is illustrated by the low number of responses that designate risk management as a key strategic function in the company (17.27%) and as part of the organization culture (10.90%). At the same time, few respondents understand the importance of a performing risk management function as a source of competitive advantage for the company, in an environment that is becoming more and more exposed to competition from European and global companies.

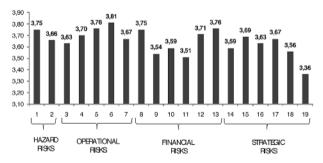


Figure 6. Risk management in Romanian companies – average scores Note. The numbers from 1 to 19 in the figure correspond to the types of risk in Figures 4 to 7.

Table 3. Risk management performance in Romanian companies

	Overall	As% from total answers
The company manages risks in an efficient manner	108	49.09
Risk management is a key strategic function in the company	38	17.27
Risk management is part of the organizational culture in the company	24	10.90
Risk management is a source of competitive advantage for the company	25	11.36
The company does not manage risks in an efficient manner	12	5.45
No response	13	5.90
Total answers	220	

In order to have a wider view over the risk management systems employed by Romanian companies, the respondents were asked to describe this system on five levels, starting from the isolated approach to the Enterprise Risk Management (ERM) approach (see *Table 4*). As expected, Romanian companies mostly manage their risks using the isolated approach (33.49% of respondents) or have no such a system in place (15.09% of respondents). At the same time, it is encouraging to observe that 25% of respondents indicate the integrated approach to risk management, and 14.62% have also adopted the ERM approach, which might suggest the effects of demonstration effects from their regional or global competitors, on one hand, but also the compulsory adoption of such approaches at the level of affiliates of foreign companies operating on the Romanian market.

Table 4. Risk management systems in Romanian companies

	Overall	As% from total answers
(1) – No risk management system	32	15.09
(2) – The isolated approach	71	33.49
(3) – The aggregated/global approach	18	8.49
(4) – The integrated approach	53	25.00
(5) – The ERM approach	31	14.62
No response	7	3.30
Total answers	212	100.00

#### **IV. Conclusions**

In an environment that is more volatile than ever and shaped by increased competition, risk management may represent a competitive advantage for Romanian companies, allowing them to stabilize their cash flows and to avoid financial distress. Unfortunately, our findings show that managers might not be aware of the magnitude of exposure their companies have to various types of risk – hazard, operational, financial and strategic risks. At the same time, in their view, they are able to manage rather well all these risks, even the ones that have the lowest impact on the business.

There may be identified a number of possible explanations for our findings. First, managers of Romanian companies have little expertise in properly assessing the impact of risks on operations and lack the appropriate

understanding of the exposure to various types of risks. Second, the risk management systems they currently employ are rather rudimentary, as risks are managed in an isolated framework, without taking into account links created between risks. Third, the economic growth process that started in Romania after 2004, coupled with the country's accession to the European Union, made Romanian managers rather optimistic

and overconfident about the future of their businesses. Over the long run, and even over a shorter one, given the current financial and economic crisis at the global level, such an attitude may generate possible problems for Romanian companies, as they are vulnerable to threats and rather unable to capitalize on business opportunities.

#### References

**Black, F., Scholes, M. (1973):** The pricing of options and corporate liabilities, *The Journal of Political Economy*, 1973, 81, 3, pp. 637–654, ISSN 0022-3808

**Lintner, J. (1965):** The valuation of risky assets and the selection of risky investments in stock portfolios and capital budgets. *The Review of Economics and Statistics*, 1965, 47, 1, pp. 13–37, ISSN 0034-6535

**Markowitz, H. Portfolio Selection. (1972):** *The Journal of Finance*, 1972, 7, 1, pp. 77-91, ISSN 0022-1082

**Merton, R.C. Theory of Rational Option Pricing. (1973):** *Bell Journal of Economics and Management Science*, 1973, 4, 1, pp. 141–183, ISSN 0005-8556

**Sharpe, W.** (1964): Capital asset prices: a theory of market equilibrium under conditions of risk. *The Journal of Finance*, 1964, 19, 3, pp. 425–442, ISSN 0022-1082